Reporting Federal Activities and Matters of National Concern . . .

HIGHER EDUCATION

October–November 1962

College Aspirations and the Future Demand for Higher Education

WILBUR J. COHEN

The Aims and Purposes of Education

STERLING M. M'MURRIN

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE—Office of Education

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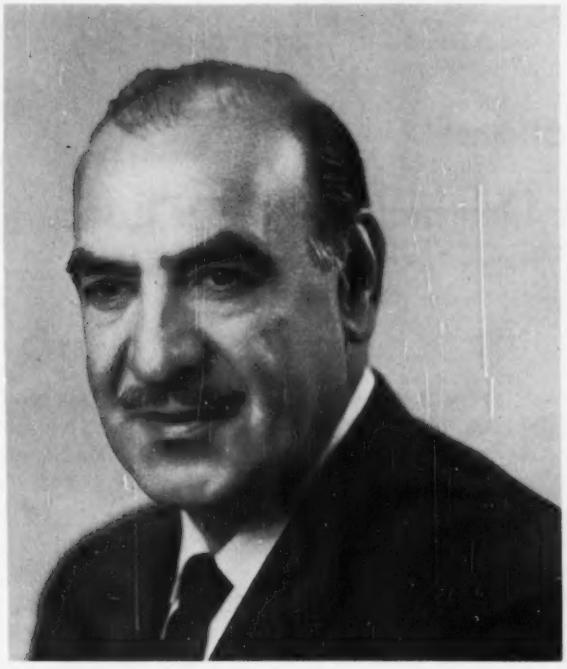

Anthony J. Celebrezze

New Secretary of Health, Education, and Welfare

ANTHONY J. CELEBREZZE, appointed by President Kennedy as Secretary of Health, Education, and Welfare to succeed Abraham Ribicoff, has a distinguished record of community service and interest in education.

At the time of his appointment, Secretary Celebrezze was serving an unprecedented fifth term as Mayor of Cleveland, Ohio. His service in that office, to which he was elected in 1953, was marked by outstanding achievement in welfare programs and slum clearance; under his leadership, Cleveland had one of the largest downtown and neighborhood urban renewal programs in the Nation. A unique feature of this program was the University Circle Cultural, Educational, and Medical Center in the development of which the city and the Federal Government cooperated with a private foundation.

Secretary Celebrezze was selected by his fellow mayors to head the American Municipal Association as President in 1958 and to serve as President and Director of the U.S. Conference of Mayors in 1962. Both President Eisenhower and President Kennedy appointed him to serve as a member of the Advisory Commission on Intergovernmental Relations.

Secretary Celebrezze received his early education in the Cleveland, Ohio, public schools, attended John Carroll University, and received his LL.B. degree from Ohio Northern University. He has been the recipient of two honorary degrees and numerous citations and awards.

In 1950 and 1952 Secretary Celebrezze was elected to the Ohio Senate and served on the Judiciary, Taxation, Veterans Affairs and Civil Defense, and Elections and Federal Relations Committees of the Senate, as well as on the Ohio Senate Highway Study Commission and the Committee on Television Education and Bureau of Code Revision.

Secretary Celebrezze's wife, Anne, is a graduate of Western Reserve University School of Education and taught in the Cleveland public school system.

College Aspirations and the Future Demand for Higher Education

By WILBUR J. COHEN*

FORMAL EDUCATION is the major dynamic mechanism by which economic opportunity is passed on from one generation to the next, or by which intergenerational changes take place. Information on parents' aspirations for educating their children provides a basis for estimating future demand for educational facilities and the potential changes in our society from one generation to the next.

Included in a recent study by the Survey Research Center Institute for Social Research of the University of Michigan was a survey of the aspirations of today's parents for their children's education.[1] The following are some of the highlights of the study report.

- The most important determinants of parents' aspirations for the education of their children are the education of the parents themselves and their current income. While aspirations determined by these two factors, education and income, generally result in the transmission of educational status from one generation to the next, other factors such as number of children in a family may influence this transmission and result in higher or lower status. The expectations of today's parents for sending children to college indicate a potentially substantial improvement in educational status of the next generation.
- The realism of families' educational plans can be assessed by comparing them with their financial resources. Some families with aspirations for higher education are found at income levels which may not permit financing higher education unless relatively low-tuition, publicly supported colleges are available in the community.
- A large proportion of the public believes that a greater share of the costs of higher education should be borne by the government, although as income and educational levels rise, the proportion favoring tax support decreases. Heads of spending units (the major earner in the spending unit; always the husband in the case of a married couple) who expect to send their children to college are less in favor of increased tax support than those who do not expect to send their children to college.
- Of the families who expressed an opinion on the amount of tax support (75 percent of those asked), 52 percent were in favor of increased support for college students. Of those who expressed an opinion on the direction of tax-support, almost half favored tax support for all students, while the remaining half favored support based on need, ability, or a combination of the two. The costs of a system which gives general assistance to all students are, of course, larger relative to the output in terms of trained manpower than those of one which uses needs, ability, or both as criteria for giving selective aid.

The study, based upon a national sample of 2,800 families taken in 1960, discloses some data on parents' aspirations for the education of their children, their plans for realizing their aspirations, and their

*Assistant Secretary of Health, Education, and Welfare.

[1] See James N. Morgan, Martin H. David, Wilbur J. Cohen, and Harvey E. Brazer, *Income and Welfare in the United States* (New York, McGraw-Hill, 1962).

attitudes toward public support for higher education that have important implications for the future demand for higher education.[2]

Parents' Aspirations for Their Children's Education

The study showed that two-thirds of the parents of boys and more than one-half of the parents of girls expect their children to attain some education beyond high school (table 1). Considering the present capacity of colleges, the parents' plans for sending their children to college may be optimistic. However, this comment does not imply that parents' aspirations do not represent a real demand for college education.

Table 1.—Educational expectations for children still in school

Education levels expected	Percentage of heads of spending units expecting given education levels	
	For boys	For girls
0–8 grades	1	0
9–11 grades	1	1
12 grades	23	31
12 grades and nonacademic training	1	4
College:		
Some college	4	6
Bachelor's degree	58	49
Advanced degree	4	1
Do not know; general responses	5	5
Not ascertained	3	3
TOTAL	100	100
Number of spending units in sample	1,128	1,069

A number of different factors including sociological, geographic, economic, and psychological circumstances influence parental planning for children's education. In order to evaluate the effect of these factors, the relationship between 14 selected characteristics of parents and the level of education they aspire to for their children was examined through a multivariate analysis. The relative importance and significance of each of these circumstances are indicated in table 2.

The education of the head of the spending unit is far more important than any of the other variables in determining educational expectations. The educational level expected for both boys and girls rises with the level of education of the head. The fact that the head of the spending unit has attended college has a somewhat greater effect on educational expectations for girls than for boys. It may be that the parents' own college experience tends to give them a greater appreciation of the nonvocational benefits of higher education. In any event, the effect of parents' attendance at college appears to be more nearly equal expectation for the education of boys and girls.

Table 2.—Circumstances affecting parents' educational expectations for children still in school

Circumstances	Rank ordering of importance of factors	
	Boys	Girls
Education of unit head	1	1
Gross disposable income of spending unit	2	4
Difference in education of head and of his wife	3	3
Attitude of head toward hard work and need-achievement score	4	5
Number of living children in family	5	2
Difference in education of head and his father	6	11
Age of head at birth of eldest living child	7	10
Occupation of head	8	6
Ratio of college students in the community to population	9	12
Migration of head from rural to urban community	10	7
Movement of head out of Deep South	11	13
Age of eldest boy or girl 20 or under	12	14
Religious preference and church attendance of head	13	8
Race of head	14	9

The family's current gross disposable income is the second most important determinant of the level of education for boys, but it is considerably less important for girls. After the figures have been adjusted to take other variables into account, they show that parents whose incomes ranged from $1,000 to $1,900 expected a level of education for boys almost one and one-half levels below that which parents with incomes of $15,000 and over expected.

The wife's education is also important in predicting parental aspirations, ranking third in importance for both boys and girls. Where the wife has substantially more education than her husband, expectations for the children's education are higher than his level of education would indicate; where the wife has less

[2] The questionnaire used can be found in appendix B of the study. The results relating to education are contained in chapters 26–29.

education, expectations for the children's education are lower.

Next in importance in predicting parental aspirations is a characteristic termed "attitude toward hard work and need-achievement score." This characteristic represents a measure of the extent to which heads of spending units differentiate in favor of high-status, high-reward occupations and believe that hard work is more important in getting ahead than luck or help from others. In general, a favorable attitude toward hard work and a high need-achievement score has a strong positive influence on educational expectations. After figures have been adjusted to take other characteristics into account, however, they show that unfavorable attitudes toward the importance of hard work and low need-achievement scores seem to have far less effect on parents' aspirations for boys than would otherwise be expected.

The number of living children in the family is an important determinant of parental expectations for educating their children, particularly the girls. While it ranked fifth in importance in predicting educational expectations for boys, it ranked second for girls. Families with one or two children expect a substantially higher level of education for both girls and boys than families having five or more children.

The only remaining factor having a significant statistical relationship to parental expectations for both girls and boys is the difference in education of the head of the spending unit and his father. Heads who had less education than their fathers appear to base their aspirations for their children in part on the experience of their fathers, and to aspire to an educational level for their children that is higher than their own. Heads who achieved more education than their fathers are less likely to expect their children to attain a level of education beyond their own.

The age of the spending unit head at the time the eldest living child was born has some effect on educational aspirations. If the father is under 20 years of age when the first child is born, he may be placed under heavy financial pressure at the outset of the marriage and may, for this reason, make less ambitious plans for the education of his children than his other characteristics would indicate.

The occupation of the spending unit head does not have a great influence on parental plans for the education of boys. Although members of the professions, on the average, expected their sons to reach the level of a college degree, which is higher than the level expected for all boys (college, no degree), most of this difference is accounted for by characteristics such as education of the head or gross disposable income of the spending unit.

There is, however, a statistically significant association between the father's occupation and expected educational attainment for girls. Farmers indicate that they expect about the same level of education for both girls and boys—higher than the average for all girls but less than the average for all boys. Managers indicate that they expect a higher level of education for girls than do members of any other occupation when other characteristics are taken into account.

Although whites and nonwhites appear, on the surface, to have substantially different expectations for educating their sons, the difference appears to be associated with differences in the education, income, and other characteristics of the two groups. In the case of girls, on the other hand, adjustments for income, education, and other characteristics of whites and nonwhites make it clear that nonwhites have higher educational goals for their daughters than the adjusted figures would indicate. Indeed, nonwhites have higher educational expectations for their daughters than for their sons, the reverse of the aspirations of white persons.

Parental Planning and the Financing of Higher Education

The costs of attending college have been rising rapidly in recent years and will probably continue to rise. In the school year 1961–62 the average direct cost of attending college was $1,700 in public institutions and $2,300 in private institutions. In view of the costs of higher education, it is obvious that families with low incomes and low savings are less likely to realize their educational expectations for children than are more prosperous families. However, because the decisions to attend a public rather than a private college and to live at home rather than at the college do to a large extent determine costs of a college education, parents were asked about their plans on both these points. They were also asked about the extent to which they expect their children to support themselves in college.

The choice of public or private colleges is related first of all to income. Among all spending unit

heads who expect their children to go to college, 78 percent expect them to go to public colleges and 22 percent to private colleges (table 3). The proportion of parents who plan to send their children to private colleges is twice as high (30 percent) among those with incomes over $10,000 as among those with incomes under $3,000 (13 percent). A higher proportion of parents in the lower income group gave indefinite answers to this question, indicating a lack of planning and probably also a lack of realism in the educational aspirations for their children.

The choice between public and private colleges is related to religious preference. Roman Catholics who attend church regularly are more likely to expect their children to attend private colleges than members of other religious groups.

Whether public colleges, private colleges, both, or neither, are available in an area affects parents' plans for their children's higher education. In areas containing only public colleges, nine-tenths of the parents expect their children to attend public rather than private colleges. Where there is no college of either kind in the area, the choice is still to a disproportionate extent (85 percent) in favor of the public college. Where there is only a private college or where both private and public colleges exist, the choice still favors the public college, but to a lesser extent.

The study showed that 70 percent of the children whose parents planned to send them to college are expected to attend public colleges and universities. This percentage is considerably higher than the percentage of the total student body presently enrolled in public colleges. (In the fall of 1961, public colleges and universities accounted for 60 percent of the total degree-credit enrollment.) Thus, it appears likely that, along with an increase in the total number of students attending college in the future, public colleges will be expected to accommodate a larger proportion of the total enrollment than in the past.

The study also showed that 61 percent of the children whose parents have definite plans for them to go to college will live away from home while attending college. The choice of living at home or going away to college depends in large part upon the income of the spending unit. Forty percent of heads of spending units with incomes below $5,000 expect all of their children to live at home while attending college as compared to 17 percent of the heads with incomes of $10,000 and over.

The availability of a public or private college in the area also exerts a major influence on the choice of where children will live while at college. Where only public colleges are available in the area, more than half of the spending unit heads expect all of their children to live at home. A local public college offers low tuition and low living costs for the students who live at home. On the other hand, the higher tuition of a private institution near home will offset at least a part of the costs of living away from home in order to attend a public college or university.

Almost 60 percent of parents who plan college for their children expect their children to contribute something to their own support while attending college. Only 3 percent expect their children to finance their college entirely and 15 percent indicated they would not expect their children to contribute anything.

Table 3.—Income levels and choice of public or private college

Range in gross disposable income	Number of heads of family units	Percent of heads planning to send children to college*	Choice of college		Percent of heads with no plans
			Public	Private	
1	2	3	4	5	6
Under $3,000	138	68	87	13	32
$3,000–$4,999	229	76	83	17	24
$5,000–$7,499	355	76	78	22	24
$7,500–$9,999	217	80	75	25	20
$10,000 and over	169	77	70	30	23

*Figures in columns 4 and 5 add to 100 percent of figures in column 3. Figures in columns 3 and 6 add to 100 percent of figures in column 2.

Income, savings, and the number of children in the family are clearly associated with the extent to which parents expect children to support themselves in college. The higher the family income, the less a parent expects his children to contribute to their college support. It is not surprising that over half of those with incomes over $10,000 expect the children to contribute little or nothing to their own college expenses. It is surprising, however, that 22 percent of the families with incomes below $3,000 expressed the same expectation. It may be that some of these families had temporarily low incomes in 1959 because of illness, unemployment, business losses, or other causes and were basing their expectations on their normal income levels. Or it may be that the responses represent less realistic aspirations of the lower income families.

Ability to support children in college depends on both income and the number of children in the family. Among families with incomes below $10,000, the extent to which children are expected to contribute toward the cost of their college education increases with the size of the family. For those with incomes of $10,000 and more, the size of the family does not have a substantial influence on the question of self-support.

Family savings are also related to the extent to which children will be expected to support themselves in college. Families with savings of more than $5,000 are less likely to expect their children to support themselves in college than families with less savings. About half of the families in the survey who planned to send their children to college volunteered information about sources of funds to finance their children's education. Savings and other assets were the most frequently mentioned sources; insurance and current income also accounted for a substantial number of responses.

Attitudes Toward Public Support of Higher Education

With prospects for increasing college enrollments and a higher percentage of applications for enrollment in public colleges, it is relevant to examine the attitude of the American people toward public support of higher education. In order to determine the views of spending unit heads on whether or not tax support for colleges should be increased, they were asked the following question: "Part of the costs of college is now paid for out of tax funds and part by college students and their parents. Do you think that tax funds should cover more of the cost than they do now, or less, or what?"

One-fourth of all spending unit heads could not answer this question, probably indicating lack of forethought or failure to understand the question. Of those answering, 52 percent said that tax funds should cover a larger part of the costs of higher education; 30 percent that they should stay as they are; and 18 percent that tax funds should cover a smaller proportion of costs than they do now. As income increases, the proportion favoring more tax support declines and the proportion favoring the existing level of support increases. Rising levels of education and occupation have a similar effect on attitudes toward tax support for colleges.

Attitudes toward tax support for colleges are also influenced by the current level of public support for higher education in the State or region in which the respondent resides. People tend to favor increased tax support in regions where existing support is comparatively low. The role of publicly controlled institutions is, in general, much larger in the North Central region and in the West than in the Northeast and South. Thus, almost 60 percent of the heads of spending units in the South and Northeast favored higher tax support for colleges, compared with only 46 percent for the North Central States and the West.

On the question of public aid for college students, all spending unit heads were asked: "Should tax money be used to support only those with ability, only those who have financial need, or should everyone be supported?" Almost half of the spending unit heads favored the use of tax funds to support all college students, without regard to financial need or ability. Roughly equal proportions of the other half favored granting assistance on the basis of need, or ability, or a combination of the two.

Parents with children aged 20 and under are somewhat more likely than others to favor aiding all students or needy students. Parents who plan to send their children to college are more likely to mention ability, alone or in combination with need; whereas parents who do not plan college for their children mention need more often. However, both groups are predominantly in favor of aid to everyone.

As income rises, ability is mentioned more often, need less often. Only in the income group $10,000 and above was there a sizable group (7 percent) who

preferred that no one be assisted. The proportion of parents favoring aid for everyone increases with the size of the family.

Significant geographical differences in attitudes toward public aid for college students were apparent in the South and Northeast. A much larger proportion of respondents in the Northeast than in other regions expresses the view that ability should be taken into account. Only one-third of the respondents in the Northeast believe that assistance should be extended to all students, compared to nearly one-half in other regions.

Respondents in the South mentioned need more frequently and ability less frequently than respondents in other areas. The combination of characteristics found in the population of the South—low average income, a comparatively low level of tax funds for education, the dominant religious preferences of the population, and a large proportion of nonwhites—may explain the responses of this region.

It may be rather surprising to some persons that a large proportion of all respondents favored public aid for all students. It may be that this response appeared more often because it requires less thought than selection of a criterion for assistance, such as need or ability. Also, if the phrasing of the question had been reversed, with "everyone" appearing first, and ability last, a different set of responses might have been obtained. Nevertheless, the fact that there was no very strong sentiment that tax funds should be used to support only those college students who demonstrate need or ability may indicate a lack of public sympathy for selective scholarships as opposed to a general subsidy for all students. Further research would be desirable to illuminate this aspect.

Educational Attainment, Past and Future

The Survey Research Center study also analyzed the forces that influenced the education of children who had already finished their schooling and the education of the heads themselves. The analysis revealed a similarity between the factors that influenced the educational attainment of the children already through school and of the previous generation and the characteristics that shape parents' aspirations for the education of children still in school. Although these analyses provide a useful basis for projections of future trends in educational attainment, there remains the crucial question of the extent to which people's attitudes, plans, and aspirations are likely to change in the future.

There appear to be three ways in which educational achievement will be increased in the future. First, as the educational attainment of each generation increases, that generation tends to see to it that its children get still more education. Second, factors other than the parents' education affect the education provided, and these factors, for children, may also change. Third, and most difficult to project, the general level of people's concern with education and the realization of its importance may grow so that parents in all situations will tend to be more concerned with their children's education. People are generally aware of the personal economic advantage of more education. Some are becoming aware of the national needs for trained personnel. Ultimately, perhaps, the cultural, social, and humanistic advantages of education may be more widely appreciated.

It is clear from the close relationship between the education of one generation and the education of the next in the same family that there is some perpetuation of poverty through low relative educational levels just as there is perpetuation of high status through continuation of high levels of education. As more and more people finish high school and go to college, though, these differences become narrowed and their importance decreases.

Policy Implications

The college-age population (18–21 years of age), which now numbers over 10 million, will increase to 14.2 million in 1970 and to between 16 and 17 million in 1980. It is estimated that college enrollment will double between 1960 and 1970, assuming that college attendance rates continue to rise as they have risen during the decade 1950–60. Increased enrollments will place heavy financial burdens on our institutions of higher education in the form of increased outlays for physical plant and for staff. Private colleges, and, to a lesser degree, publicly supported colleges will pass on some of the increased costs in the form of higher tuition and fees. Rising enrollments will call for higher levels of tax support for public colleges and universities.

The implication of the Survey Research Center study is that future demand and need for greater public support of higher education will be substantial.

Current levels of tax support for higher education will not permit the education in public college of all of the children for whom parents expressed such aspirations. Since current public opinion is not strongly in favor of increased taxes to support higher education, it is clear that when the children in question reach college age, the voters will either have to support the necessary public expenditures, revise their expectations about their children's education, or provide substantially more direct financial support for the education than they are currently planning to provide.

The ability to plan ahead is an important factor in the realization of parents' aspirations for their children's education. In order for children to obtain an education beyond high school, parents must make realistic plans and implement them, in part, by more nearly adequate savings. Those whose incomes are barely sufficient to meet their budgetary needs find it difficult to plan ahead and to save, although this is the group that has the most need for advance planning. Clearly, there is a circular causation between low incomes, lack of planning, and low educational attainment. It is to be hoped that this cycle may be broken by awakening greater public appreciation of the importance of higher education coupled with a willingness on the part of all citizens to share in its costs.

The sharply rising costs of college education constitute a barrier for many students of ability. One-half of the Nation's high school graduates do not go on to college. Among this group are many students of high potential who are unable to continue their education because of lack of finances. The Nation can ill afford the loss that is represented by the failure of these students to develop the full potential of their brainpower. This waste will continue unless measures are taken to insure that the benefits of higher education are made available to all talented students, regardless of their means. A program of Federal scholarships is one step toward that goal; increased tax support for public colleges and universities is another; aid in the construction of academic facilities for public and private institutions is still another.

Education is the leavening by which the economic and cultural level of a nation is raised. Because investment in the education of the Nation's youth is in the interest of every citizen, it is reasonable for all citizens to share in the costs. The willingness of the public to support a policy of increased tax support for higher education depends upon their recognition of the value of higher education and of the importance of removing financial barriers that prevent talented young people from getting a college education.

President Kennedy Proclaims National Cultural Center Week

PRESIDENT KENNEDY has proclaimed the period from November 26th through December 2, 1962, as National Cultural Center Week. The week will be highlighted on November 29th with a nationwide, closed-circuit telecast planned to raise funds for the National Cultural Center in Washington, D.C.

Entitled "An American Pageant of the Arts," the telecast is designed to display the contributions of each of the Nation's regions to our national cultural heritage; it will be shown in approximately 100 cities across the Nation and is expected to reach over a million viewers. The telecast will be shown at six universities in the Washington, D.C., area in addition to a downtown theater.

Communities participating in the fund-raising telecast will retain one-half of the proceeds to support local cultural activities, and the other half will go toward support of the construction of the Center in Washington. The structure, to cost approximately $30 million, was designed by Edward Durell Stone.

The Congress, which authorized plans for the project in 1958, donated a 13-acre tract by the Potomac River as the site for the Center, which will provide facilities for the presentation of classical and contemporary music, drama, opera, dance, poetry, and other performing arts.

Funds for the construction of the Center are to come from donations. The telecast is only one of the projects planned to raise money for this purpose. Other fund-raising projects will be addressed to communities throughout the country.

Contributions, which are tax-deductible, may be sent directly to the National Cultural Center, 718 Jackson Place NW., Washington 6, D.C.

The Aims and Purposes of Education*

By Sterling M. McMurrin

It is entirely clear that our present intense commitment to education is a recognition of its powers, through the achievement and dissemination of knowledge and the cultivation of the instrumentalities of reason, to transform a society by a large advancement of its technology, its industry, commerce, and agriculture, and, by radically affecting their economy, to improve the material living conditions of a people. It is obvious, too, that there is increasingly a direct relation between the extent and quality of a people's education and their achievement of national dignity and an effective voice among the family of nations.

Moreover, there is fortunately a growing awareness of the relevance of education to the vitality of a total culture, and there is now the demand that the schools consider their responsibilities not only to the technological and material facets of society but even more than before to those humane disciplines that in large measure determine the intellectual, artistic, and spiritual life of a people.

But at the foundation of this enthusiastic commitment to the social and national and international ends of education, where we are moved by the aims and purposes that are defined by our large social problems and cultural ideals, there must always be an even more profound and sensitive concern for the individual person. The educational enterprise of a people must ultimately be judged by its effectiveness in cultivating fully the rational capacities of the individual, his critical facilities and his independence of mind, and his abilities for artistic creation and appreciation—by its contribution to his achievement of that intellectual, moral, and spiritual quality of life that describes the proper character and vocation of man. Above all, the nature and quality of a nation's education must be judged by its relevance to its people's personal dignity, their sense of individual worth, and their enjoyment of genuine freedom.

More than anything else, on this memorable occasion, I would communicate to you the faith in education of the people of the United States of America, a faith that issues from a cultural tradition belonging to many of you, and shared by all of us. It is the faith that that public policy which places the individual person at the very center of the purposes of education and describes a course which, when conscientiously and intelligently followed, best ministers to his needs, nourishes his individuality, and cultivates his values, not abstracting him from his natural context in society yet regarding him always as an end in himself, will not only secure for the individual his most precious possession, his freedom, but as well will build strength into the society, bring vitality to the culture, and ensure high dignity to the Nation, and will contribute thereby to the general well-being of mankind.

*From an address delivered at the Twenty-Fifth International Conference on Public Education, Geneva, Switzerland, in July 1962. Commissioner McMurrin was Chairman of the U.S. delegation to this conference.

OFFICE OF EDUCATION *Studies* AND *Surveys*

Student Borrowers: Their Needs and Resources

WHEN the 1960–61 college year opened in September, approximately $128 million in Federal funds had been made available to 1,400 institutions of higher education under the terms of the National Defense Education Act of 1958. These Federal funds plus the institutions' contributions of an amount equal to one-ninth, or more than $14 million, brought the total funds available to students to $142 million for the period from February 1959 to June 1961. Of the $128 million from the Federal Government, approximately $92 million had been lent to 203,000 college students by November 30, 1960.

The Office of Education has collected data on these students for use in answering requests for information received from the U.S. Congress, corporations and foundations, participating institutions, and others; in assessing the impact of the Student Loan Program on higher education; and in planning the future direction of the Program. The information obtained is reported in *Student Borrowers: Their Needs and Resources* by Robert C. Hall and Stanton Craigie (see "New Publications"). The data presented here are taken from the report.

In June 1960, questionnaires were sent to all institutions (approximately 1,400) then participating in the National Defense Student Loan Program. At the end of 4 months, the institutional representatives sent all the questionnaires which had accumulated to the Student Loan Section of the U.S. Office of Education. This report is based on the questionnaires 1,030 of the 1,400 participating institutions collected from students between July 1 and October 31, 1960.

The Office drew a systematic random sample of the questionnaires to analyze the data. The sampling procedure was designed to permit a sampling error of not more than 2 percent in major estimates for the Nation. A systematic sample of one out of every five questionnaires was drawn for 15 States, one out of every two was drawn for 20 States, and all questionnaires were used for 17 States. This procedure provided a working sample of 30,246 questionnaires.

For 92 percent of the borrowers, a student loan apparently determined whether the borrower would be able to enter or stay in college. A total of 21,674 freshmen, constituting 25 percent of all borrowers and 83 percent of all freshman borrowers, reported that they were able with a loan to start college, and that they would not have been able to enter without a loan. Of other undergraduates, 50,142 said that they were enabled by student loans to continue their studies.

Of all borrowers, 75 percent indicated they would need additional loans from the fund to complete their academic programs. Of all freshman borrowers, 91 percent will need additional loans; of sophomore borrowers, 91 percent; of juniors, 87 percent; of seniors, 35 percent; and of graduate students, 58 percent. Sixty percent of the entering freshmen who said that the loan determined their being in college also said that they plan to teach. The comparable figures for the other groups are 66 percent (other undergraduates), 65 percent (entering graduates), 57 percent (other graduates), and 64 percent (the total for all groups).

Students' need for loans is shown by the extent to which borrowers are financing their college expenses from sources outside their families' incomes. Of all borrowers, 30 percent reported that they were financing the entire cost of education from sources outside the family (loans, jobs, scholarships); 59 percent, three-fourths or more of their college expenses; and 85 percent, one-half or more of their college expenses. Of those planning to teach after the bachelor's degree (41,324), the percentage financing their college expenses outside the family, in various proportionate amounts, is as follows: 4 percent, one-eighth of their expenses; 11 percent, one-fourth; 25 percent, one-half; 30 percent, three-fourths; and 30 percent, all expenses.

In the Nation, 71 percent of the borrowers came from families whose annual income is $6,000 and under. Of these, 41 percent came from families in the $0 to $4,000 income bracket and 30 percent from families in the $4,001 to $6,000 income bracket. In some States the percentage of student borrowers from families with incomes in the $0 to $4,000 bracket was higher than the national average; these included Puerto Rico with 84 percent of student borrowers in this category; Mississippi with 68

percent; Arkansas with 67 percent; and 14 more States with over 50 percent.

The students' need for loans is further demonstrated by these facts: (1) 71 percent of the parents of these borrowers had incomes of $6,000 or less, and 41 percent, $4,000 or less; (2) 73 percent of the borrowers had at least one brother or sister of college age or younger, and 45 percent, two or more of college age or younger, who would be likely to share the income of the parents; (3) 81 percent of the borrowers had savings of $250 and under, and 94 percent, $500 and under; (4) 90 percent or more of the borrowers in Alabama, Arkansas, Louisiana, Oklahoma, South Carolina, Texas, Mississippi, and Puerto Rico had almost no savings.

The questionnaire asked student borrowers about their estimate of the amount of debt they could safely incur. Five percent of the borrowers in the Nation believed they could borrow up to the level of only $500. Eighteen percent of the borrowers indicated they could safely borrow $1,000; 29 percent, $2,000; 24 percent, $3,000; 19 percent, $6,000; and 5 percent, over $6,000.

A further analysis was made to show the relationship of choice of an occupation to the attitudes of borrowers toward incurring debt for education. Of the prospective teachers, 6 percent thought their maximum debt should be $500; 20 percent, $501 to $1,000; 31 percent, $1,001 to $2,000; 26 percent, $2,001 to $3,000; 15 percent, $1,001 to $6,000; and only 2 percent felt they could safely incur an indebtedness greater than $6,000. In contrast, 3 percent of the prospective engineers estimated their debt limit at $500; 11 percent, $501 to $1,000; 27 percent, $1,001 to $2,000; 29 percent, $2,001 to $3,000; 25 percent, $3,001 to $6,000; and 5 percent over $6,000. Only 1 percent of the prospective physicians indicated their debt limit should be $500; 5 percent, $501 to $1,000; 10 percent, $1,001 to $2,000; 13 percent, $2,001 to $3,000; 33 percent, $3,001 to $6,000; and 37 percent above $6,000. These figures show that prospective teachers are more conservative in their attitude toward debts for education than prospective engineers, and prospective engineers more conservative than prospective physicians. Apparently, the limits which borrowers place on debts for their education indicate their estimates of their future earnings in their jobs. Of those who considered it safe to borrow over $6,000, 44 percent specified physician or dentist as their occupational choice.

Approximately 72 percent of all student borrowers were majoring in these subjects: Education, 37 percent, or 32,021; engineering, 10 percent, or 9,064; science, 6 percent, or 5,182; and modern foreign languages, 3 percent, or 2,383.

Data taken from the questionnaire show that the Student Loan Program is helping meet a critical manpower shortage in the medical field. About 9 percent of all borrowers were in curriculums leading toward the professions of dentistry, medicine, or nursing; approximately one-third of these specified a medical curriculum and one-third a premedical curriculum. One percent of all borrowers were in curriculums leading to the nursing profession. The following States had comparatively high percentages of borrowers in the health profession: the District of Columbia, 22 percent; Nebraska, 20 percent; Wisconsin, 18 percent; and Georgia, 17 percent.

Borrowers planning to teach constituted 63 percent of all borrowers in the Nation; 48 percent will do so after receiving the bachelor's degree; 11 percent, after the master's degree; and 4 percent, the doctorate.

Of those borrowers planning to teach in secondary schools, 55 percent were majoring in education; 10 percent, in science; 10 percent, in mathematics; 1 percent, in engineering; 4 percent, in modern foreign languages; and 20 percent, in other subjects. Of those wishing to teach in college, 14 percent were majoring in education; 24 percent, in science; 8 percent, in mathematics; 6 percent, in engineering; 5 percent, in modern foreign languages; and 43 percent, in other subjects.

The borrowers indicated that 59 percent had chosen teaching as a career; 11 percent, engineering; 4 percent, medicine (physician); 2 percent, dentistry; and 24 percent, other occupations. The national figure for teaching is a bit lower, at 59 percent, than the figures presented immediately above (63 percent). This difference in percentage may be caused by the fact that some borrowers plan to teach temporarily while obtaining advanced degrees or while qualifying for cancellation of the loan.

The significance of these data on occupational choice must be viewed in the light of the spirit and intent of the National Defense Student Loan Program, i.e., to aid and encourage, by means of financial aid, more of the Nation's youth to enter careers in teaching, engineering, science, mathematics, and modern foreign languages. In the first 4

months of fiscal year 1961, the Student Loan Program assisted 51,213 prospective teachers, 9,440 prospective engineers, 3,547 prospective physicians, and 1,307 prospective dentists.

New Stamp for Higher Education

The Post Office Department announced recently that it would issue a special stamp pointing to the role higher education has played in the cultural and industrial development of the United States.

The new 4-cent Higher Education stamp comes as part of the centennial observance of the Morrill Act, establishing land-grant colleges and universities. It goes on sale November 14 in Washington, D.C., in conjunction with a dinner meeting marking the 75th anniversary of The American Association of Land-Grant Colleges and State Universities.

Economics of Higher Education

Economics of Higher Education, recently published by the Office of Education (see "New Publications"), is a collection of essays contributed by economists and students of higher education. The editor, Selma J. Mushkin, formerly economic consultant in the Division of Higher Education, says of it:

> * * * This volume is a summary of a substantial segment of earlier research and opens up new questions for inquiry on a broad range of macroeconomic problems. Part I of the volume concerns the demands of students for higher education and of the Nation for high-talent manpower. Part II presents the fundamentals of a of a theory of investment in people through education. It includes consideration of the essential differences and similarities between investment in people and investment in physical capital, an assessment of the educational stock of the labor force—both in terms of original cost and in terms of replacement—and estimates of the volume of resources allocated to education and the return on this investment. Part III deals with the financing of higher education and covers a wide range of sources of funds, public and private. Part IV describes briefly the ongoing research in the economics of higher education and outlines the range of issues which require still further study.

The publication grew out of a meeting of economists called by the Office of Education and reflects the concern of the Office for the economic realities underlying the task of providing higher education of needed quality for greatly increasing numbers of students.

Contributors to the volume included Louis H. Conger, Jr., Harvey E. Brazer and Martin David, Seymour L. Wolfbein, William H. Stewart, Thomas J. Mills, Mary Jean Bowman, Theodore W. Schultz, Richard S. Eckaus, Herman P. Miller, Rudolph C. Blitz, Selma J. Mushkin and W. Robert Bokelman, Marion B. Folsom, Roy E. Moor, Robert J. Pitchell, William Vickrey, Richard Goode, Herbert H. Rosenberg, Dennis S. Lees, Willard L. Thorp, and Alice M. Rivlin.

The authors worked independently of each other, except those who collaborated as joint authors of essays, and no attempt was made to achieve agreement among them. For this reason, the content of the essays and the views of the authors represent their personal analyses and do not necessarily reflect those of the Office.

Federal Programs in Higher Education

THE Office of Education has published a summary report of *A Survey of Federal Programs in Higher Education* (see "New Publications"). The survey was undertaken to secure full information concerning scholarships, fellowships, and other educational programs administered by the Federal Government.

The report is organized in three parts. Part I is an account of the nature, scope, and volume of federally sponsored programs in colleges and universities of the United States and the institutions which participate in them.

Part II reports findings concerning significant and specific concomitants of federally sponsored activity as seen in a sample of 36 colleges and universities.

Part III discusses the implications of the information presented in parts I and II for policies and procedures which will strengthen the educational programs and objectives of institutions of higher education and makes certain specific recommendations.

The survey was directed by J. Kenneth Little, of the University of Wisconsin, as a special consultant to the U.S. Commissioner of Education, and conducted in part by Harold Orlans, of the Brookings Institution, under contract with the Office of Education.

The full report of the *Survey of Federal Programs in Higher Education* will be available as Office of Education Bulletin 1963, No. 6 (OE–50034).

National Defense Education Act

NDEA Notes

Modern Foreign Language Fellowships

BETWEEN 1959–60 and 1962–63 the number of National Defense Education Act Modern Foreign Language Fellowships increased from 171 to 1,006, nearly a sixfold increase. In addition, 34 postdoctoral grants were made. The dollar amounts involved increased almost eightfold, from $500,000 to nearly $4 million. This amount includes $56,053 for postdoctoral grants.

In 1959–60 only six languages were aided. For 1962–63 fellowships have been awarded for the study of 55 languages. These fellowships are designed to increase the number of trained linguists in languages of critical importance to the United States and to prepare students for college teaching, for Government service, or for service in a nonprofit, nonsectarian organization.

Universities throughout the United States have cooperated in the fellowship program by appointing fellowship committees. The committees announced the programs, advised candidates, and received and processed applications which they submitted to the Office of Education with recommendations. A panel of 33 language specialists from colleges and universities and Government agencies which make heavy use of persons trained in modern foreign languages reviewed the 3,143 applications and made recommendations to the Commissioner of Education.

In the accompanying tables the languages studied, the numbers of fellows studying each language, and the dollar amounts involved are given. Because of resignations and other adjustments, the final figures may differ slightly from those that are given on the tables.

The majority of the fellows are preparing to teach, as this distribution of fellows by career goal shows:

	1961–62 Percent	*1962–63 Percent*
Fellows preparing to teach primarily the languages of their awards	42	37
Fellows preparing to teach secondarily the languages of their awards	32	32

Table 1.—Modern foreign language fellowships awarded, 1959–60 to 1962–63

Item	1959–60	1960–61	1961–62	1962–63
Number of fellows	171	[a] 472	[b] 766	[c] 1,006
Academic year	135	211	334	486
Summer and academic year	25	190	321	428
Summer only	11	69	101	89
Other	.....	2	10	3
Funds obligated	$500,342	$1,674,513	$2,799,631	$3,919,037
Average fellowship stipend				
Academic year	2,960	3,595	3,647	3,662
Summer and academic year	3,606	4,340	4,584	4,563
Summer only	557	875	865	904
Other	.....	2,785	2,237	2,390
Number of institutions	25	34	47	58
Number of fellows studying	171	472	766	1,006
Arabic	22	61	96	109
Chinese	32	64	107	137
Hindi-Urdu	10	41	73	72
Japanese	24	64	100	104
Portuguese	14	36	54	80
Russian	69	132	189	177
Spanish	.....	.....	.....	100
Other	.....	74	147	227

[a] Includes 112 renewals of fellowships awarded in 1959.
[b] Includes 255 renewals of fellowships awarded in 1959 or 1960.
[c] Includes 417 renewals of fellowships awarded in 1959, 1960 or 1961.

	1961–62 Percent	1962–3 Percent
Fellows preparing to teach in fields for which the languages of their awards are important	15	20
Fellows preparing for service with the U.S. Government in fields for which their language competence will be important	11	11
	100	100

Table 2.—National defense foreign language fellows by languages

Language	1960–61	1961–62	1962–63
Afrikaans	1	1	1
Albanian	.....	1	1
Arabic	61	96	109
Bambara	.....	.....	4
Bengali	7	8	11
Berber languages (Kabyle)	.....	1	2
Bulgarian	.....	2	3
Burmese	2	1	3
Chinantec	.....	.....	2
Chinese	64	107	137
Czech	.....	3	4
Danish	.....	1	2
Estonian	2	1	.....
Finnish	6	12	13
Georgian	2	2	.....
Greek	.....	2	2
Hausa	.....	.....	1
Hebrew	8	13	10
Hundi-Urdu	41	73	72
Hungarian	3	5	8
Icelandic	.....	1	1
Indonesian	9	7	13
Japanese	64	100	104
Kannada	.....	.....	1
Kazak	1	.....	.....
Kazan-Turkic	1	.....	.....
Khalkha-Mongolian	3	4	3
Kikonga	.....	.....	1
Korean	1	5	10
Lithuanian	.....	.....	1
Malayalam	.....	.....	1
Marathi	1	1	1
Mixtec	.....	.....	1
Nahuatl	.....	.....	1
Nepali	.....	.....	1
Norwegian	1	2	2
Pashto	.....	1	2
Persian	8	8	13
Polish	2	7	9
Portuguese	36	54	80
Quechua	.....	2	5
Rumanian	.....	1	6
Russian	132	189	177
Serbo-Croatian	.....	8	7
Shona	.....	.....	1
Spanish	.....	.....	100
Swahii	4	8	23
Swedish	1	3	3

Table 2—Language fellows by languages—Con.

Language	1960–61	1961–62	1962–63
Tamil	.....	2	3
Teluga	1	4	8
Thai	.....	4	10
Tibetan	1	2	2
Turkish	6	16	13
Twi	1	.....	1
Uralic	.....	.....	1
Uzbek	2	1	2
Vietnamese	.....	3	5
Visayan	.....	1	1
Yoruba	1	3	8

Films on New Educational Media

SIX FILMS on uses of communications media in education will be produced under NDEA contracts with two universities and a State system of higher education.

The Pennsylvania State University is producing a documentary report on its system of closed-circuit television instruction in which some 10,000 students are taking 21 courses. The film, a 28½-minute, 16 mm., black and white case study, is scheduled for completion by May 30, 1963. C. R. Carpenter and L. P. Greenhill, university officials, are in charge of production.

A demonstration film—"Television, A Teaching Assistant"—reporting on interinstitutional and interregional television teaching at the college level, will be produced by the General Extension Division of the Oregon State System of Higher Education under the direction of Lester F. Beck. This 28½-minute, 16 mm., black and white film documentary is scheduled for production after January 1, 1963.

The Ohio State University is scheduled to produce a series of four motion pictures on communication theory and the new educational media. Titles of the 30-minute, 16 mm., black and white films (with some color where needed for emphasis and explanation) include "The Communications Revolution," "Perception," "Models of Communication," and "The Communications Revolution and Education." Preliminary scripts have been approved, and the films should go into production by April 1963. Robert W. Wagner of the university is in charge.

Higher Education will report further details on the films when they are available for distribution.

Other Program Notes

Demonstration Centers in English

THE Office of Education has announced the availability of funds for a limited number of Demonstration Centers in English.

Colleges, universities, or State departments of education may apply for support of a Center. A local school system may apply through a college, university, or State department of education. Proposals should be postmarked no later than January 2, 1963.

Questions and requests for information and application forms should be addressed to: Coordinator of Project English, U.S. Office of Education, Washington 25, D.C.

Educational Television Survey

THE first nationwide educational television survey indicates a need during the next decade for more than three times the 309 channels already allocated to ETV.

This large-scale deficit in channels for teaching was pointed out by Anthony J. Celebrezze, Secretary of Health, Education, and Welfare, in releasing the report compiled by the National Association of Educational Broadcasters under a contract with HEW's Office of Education.

"The study just published is of immediate interest," said Secretary Celebrezze, "because it provides a blueprint for an adequate educational television service for the United States. It should provide useful guidance in the administration of the Educational Television Act recently enacted by Congress, which will make available matching grants for new noncommercial educational television facilities.

"The new act, to be administered by this Department, will help stimulate the growth of television as an educational and cultural medium for the advancement of all our citizens. The survey of needs for channels points out the high degree of interest that exists in our schools, colleges, and communities."

The estimate of need for television channels was based on information gathered from colleges and universities, local school systems, State departments of education, many civic and governmental leaders, and active educational television stations.

From this information the survey group derived the needs for television spectrum space in each State, community, and educational complex across the country. Maps and charts included in the report show graphically the projected channel allocations within the States.

The Office of Education is now distributing the printed report to school administrators, libraries, and organizations. The report is entitled "The Needs of Education for Television Channel Allocations."

Cooperative Research Program

CHANGES now being made in the review procedures of the Cooperative Research Program require submission of research proposals by February 1 and September 1 of each year.

All research proposals received after September 1, 1962 will be divided into four groups: (1) Those dealing with the learner as an individual (Personnel and Processes), (2) those dealing with the content of education (Curriculum and Methods), (3) those dealing with the environment as it influences the learning process (Environment), and (4) those dealing with areas being given special emphasis, such as "Project English," and involving both research and other activities.

The review procedure will now be conducted in two stages. There will be a technical evaluation of the proposals by panels corresponding to the four areas mentioned above. The panels will select those proposals which best meet the criteria and will recommend that a proposal be placed in one of five categories—approved, provisionally approved, deferred, disapproved with advice to resubmit, and disapproved. The second stage will consist of a review of these recommendations by the Research Advisory Council which will be concerned with overall research policy and needs for research information.

Four panels have now been set up. Each is made up of five members of whom two are also members of the Council. The present Office of Education Research Advisory Committee now becomes the Research Advisory Council with each member, except the chairman, serving as a member of one of the four panels.

The panels and the Council are expected to meet

only twice each year rather than three times. The September 1 deadline for submission of proposals remains unchanged. The panels will meet in October and the Council in November. A new deadline date of February 1 for submitting proposals replaces the former December 1 and April 1 dates. The panels will meet in March and the Council in April. Research sponsors will be notified of the Council's decision within 2 weeks after the Council meeting. Criteria and format for submitting proposals remain unchanged.

New Appointments: Office of Education

HAROLD A. FOECKE has recently been appointed as the specialist for Engineering Education in the Office of Education. He succeeds Dr. Henry H. Armsby who retired from Government service in April 1962. Prior to his appointment on June 15, 1962, Dr. Foecke was project director for the American Society for Engineering Education and assistant professor of electrical engineering at the University of Notre Dame. Dr. Foecke has also taught at Iowa State University and the Polytechnic Institute of Brooklyn.

An alumnus of Iowa State University (B.S. and M.S.), Dr. Foecke received his Ph. D. from the University of Notre Dame. While serving in the Navy, he was assigned to the Technical Training and Liasion Division of the U.S. Naval Inspector of Ordnance, Johns Hopkins University, and was responsible for technical liaison between the Navy Bureau of Ordnance and the Applied Physics Laboratory on matters of guided missile research and development.

Dr. Foecke is the author of numerous publications and articles, and has been elected to Sigma Xi, Phi Kappa Phi, Eta Kappa Nu, Pi Mu Epsilon, Kappa Mu Epsilon and Lambda Delta Lambda honor fraternities. In 1955, he won first prize in ASEE Young Engineering Teachers' Paper Contest with an entry entitled "Specialists in Diversification."

DONALD R. TUTTLE has recently been appointed the first specialist for College English in the Office of Education. In addition to his other duties, Dr. Tuttle will work closely with J. N. Hook, Coordinator of Project English, and other staff members in carrying out the activities proposed under Project English. Prior to his appointment in June 1962, Dr. Tuttle was a professor at Fenn College in Cleveland, Ohio, where he taught English for over 30 years.

Dr. Tuttle has long been active in numerous national education associations. Last year, he was second vice-president and program chairman for the National Council of Teachers of English. He has been chairman of the Committee on Teacher Preparation and Certification of the NCTE and is still on the Executive Committee of the Conference on College Composition and Communication. He was also chairman of the committee that revised State certification of requirements of English and speech for the Ohio Department of Education.

Dr. Tuttle is a menber of the National Council of Teachers of English, the Modern Language Association (where he was formerly the consultant on Coleridge for its publication, PMLA), the College English Association, the American Association of University Professors, and the National Education Association. An alumnus of Oberlin College (B.A.), Dr. Tuttle received his M.A. and Ph. D. degrees from Western Reserve University in Cleveland, Ohio.

JAMES M. SPILLANE became Chief of the Language Institutes Section on September 4, 1962. He will serve in the Division of College and University Assistance which administers Titles II, IV, V(B) and VI of the NDEA. Dr. Spillane succeeds Lawrence C. Poston, Jr., who has returned to the University of Oklahoma as professor of modern languages.

Before Dr. Spillane joined the Office of Education staff in August 1960 as specialist for institutes in the Language Institutes Section, he had been an associate professor of modern languages at the University of Notre Dame and an instructor in modern languages at Purdue University. At Notre Dame, he taught German, was in charge of the language laboratory, and directed the NDEA foreign language institute held there during the summer of 1960 for secondary school teachers of French and Spanish.

A native of LeRoy, N.Y., Dr. Spillane received his A.B. degree from Hobart College and his Ph. D. from Cornell University. He was a Fulbright appointee to the University of Vienna during the 1951–52 academic year. From 1943 to 1946 he served in the U.S. Navy, first at the Navy Language School, Boulder, Colo., where he studied Japanese, and later at the Washington Documents Center, where he translated and evaluated Japanese materials. Dr. Spillane is a member of the Phi Beta Kappa and

Phi Kappa Phi honorary fraternities, the American Association of Teachers of German, the Modern Language Association, and the Indiana Foreign Language Teachers Association.

Teaching Machine Tour

On October 22, the first major traveling exhibit concerning programed instruction and teaching machines opened in Washington, D.C. The demonstration-exhibit, which was prepared by The Center for Programed Instruction, Inc., is under the auspices of the Educational Media Branch of the Office of Education.

The project's primary purpose is to provide classroom teachers and school administrators with an understanding of programed instruction and teaching machines. Included in the displays are color slides of all teaching machines now on the market and a library of all academic programs available for the 1962–63 school year. Viewers are afforded the opportunity of learning about programed instruction through a series of displays showing the steps of a program written expressly for the exhibit.

Coordinator of the project is A. Harvey Block, of the Center for Programed Instruction, Inc. Dr. Block was assisted in preparing the exhibit by Phil Lange of Teachers College, New York City.

Plans have been made to show the exhibit in seven cities. The planned schedule of dates, cities, and sponsoring groups is as follows:

Date	City	Sponsor
Oct. 22–26, 1962	Washington, D.C.	U.S. Office of Education.
Nov. 1–3, 1962	Louisville, Ky.	Southeast Regional Conference of Department of Classroom Teachers.
Dec. 1962 (1 week).	New Orleans, La.	New Orleans Division of Louisiana State Univ.
Jan. 31–Feb. 2, 1963.	St. Joseph, Mo.	South Central Regional Conference of Classroom Teachers.
Feb. 16–20, 1963	Atlantic City, N.J.	National Conference of American Association of School Administrators.
Mar. 30–Apr. 3, 1963.	Oklahoma City, Okla.	National Annual Meeting of the Department of Elementary School Principals.
Apr. 21–26, 1963	Denver, Colo.	National Convention of the Department of Audio-Visual Instruction of the National Education Association.

NEW PUBLICATIONS

Government Publications

From the Office of Education

(1) *Cost Publications: Send request, enclosing remittance (check or money order), to the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.*

Casebook on Campus Planning and Institutional Development, by John B. Rork and Leslie F. Robbins. 1962. 162 p. $1.25. (OE–51003)

Economics of Higher Education, by Selma J. Mushkin, *ed.* 1962. 406 p. $2.75. (OE–50027)

Higher Education Basic Student Charges, 1961–62, Tuition and Fees, Board and Room, by W. Robert Bokelman and Louis A. D'Amico. 1962. 56 p. 40 cents. (OE–52005–62)

Higher Education Salaries, 1961–62, by W. Robert Bokelman and Louis A. D'Amico. 1962. 63 p. 40 cents. (OE–53015–62)

Land-Grant Colleges and Universities, 1862–1962, by Henry S. Brunner. 1962. 78 p. 35 cents. (OE–50030)

Student Borrowers: Their Needs and Resources, by Robert C. Hall and Stanton Craigie. 1962. 80 p. 55 cents. (OE–55011)

A Survey of Federal Programs in Higher Education: Summary Describing the Program, Participating Institutions, and the Effects of the Programs on the Institutions, by J. Kenneth Little. 1962. 56 p. 25 cents. (OE–50033)

Survey of State Legislation Relating to Higher Education, by S. V. Martorana and Ernest W. Hollis. 273 p. $1.75. (OE–50008–61)

Teaching Machines and Programed Learning, by James D. Finn and Donald G. Perrin. 1962. 85 p. 55 cents. (OE–34019)

The Needs of Education for Television Channel Allocations, by Vernon Bronson, *ed.* National Association of Educational Broadcasters. 1962. 181 p. $9.25. (OE–34017)

What High School Pupils Study: A National Survey of the Scholastic Performance of Pupils of

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Various Abilities, by Edith S. Greer and Richard M. Harbeck. 1962. 146 p. 60 cents. (OE–33025)

(2) *Free Publications:* (*Address inquiries to Office of Education, U.S. Department of Health, Education, and Welfare, Washington 25, D.C.*)

College and University Finance Series: Student Charges and Faculty Salaries in Junior Colleges, 1961–62, by W. Robert Bokelman, Louis A. D'Amico, and Anna Jane Holbrook. The second in the series. July 1962. 9 p. (OE–52004–2)

College and University Physical Facilities Series

Student Accommodations in Instructional Facilities, 1960–61 and Planned for 1965–66, by Leslie F. Robbins. The fourth in the series. July 1962. 7 p. (OE–51004–4)

Student Accommodations in Residential Facilities, 1960–61 and Planned for 1965–66. by Leslie F. Robbins. The fifth in the series. July 1962. 6 p. (OE–51004–5)

Expenditures Planned for Higher Education Facilities, 1961–65, by Leslie F. Robbins. The sixth in the series. July 1962. 7 p. (OE–51004–6)

Classroom Facilities Planning Aids, by E. Eugene Higgins, Mary B. Fuller, and Dorothy M. Jones. The seventh in the series. June 1962. 15 p. (OE–51004–7)

Married-Student Apartment Planning Aids, by E. Eugene Higgins, Mary B. Fuller, and Dorothy M. Jones. The eighth in the series. July 1962. 11 p. (OE–51004–8)

Residence Hall Planning Aids, by E. Eugene Higgins, Mary B. Fuller, and Dorothy M. Jones. The ninth in the series. July 1962. 19 p. (OE–51004–9)

Campus Parking Bibliography, by E. Eugene Higgins and Dorothy M. Jones. The 10th in the series. August 1962. 3 p. (OE–51004–10)

Student Infirmary Planning Aids, by E. Eugene Higgins and Dorothy M. Jones. The 11th in the series. September 1962. 3 p. (OE–51004–11)

Space Utilization, by E. Eugene Higgins and Dorothy M. Jones. The 12th in the series. August 1962. 7 p. (OE–51004–12)

(The series will be continued. See subsequent issues of this journal for further titles in these series.)

Library Research in Progress, Number 7, Henry T. Brennan, *ed.* July 1962. 10 p. (OE–15005–7)

Project English Newsletter: Issue No. 1. May 1962. 4 p. (OE–30006–1)

Project English Newsletter: Issue No. 2. October 1962. 4 p. (OE–30006–2)

A Statistical Analysis of Graduate Degrees by Land-Grant Institutions in 1958–59, by John L. Chase and Catherine W. Spiro. 1962. 53 p. (OE–50031)

Summer Session Programs: Regular Year Scholarship Programs of Institutions of Higher Education Applicable for Summer Session Study, 1960, by Harold A. Haswell, Bernice R. Retzlaff, and Donald F. Warner. 1962. 8 p. (OE–55033)

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